NWCG Equipment Technology Committee

National Fire Equipment System

Cache Memorandum: 23-02

October 16, 2023

To: NFES: National Interagency Support Caches (NISC)

From: Bill Yohn, Acting Chair, NWCG Equipment Technology Committee (ETC)

Subject: Ignition Spheres with Energetic Reactions

Issue: Dragon Egg plastic ignition spheres (NFES 003412) made between July 14 and July 17, 2023 were manufactured without an additive that calms the reaction. These spheres will react quickly, often in less than 10 seconds after injection, and can pop apart without igniting or will propel themselves a distance of many yards through the air, causing use issues in the field. Interagency Support Caches may have purchased some of these spheres.

Action: Interagency Support Caches should review all boxes of NFES 003412 and remove boxes with a date stamp including the dates of July 14 through July 17, 2023. Contact Type One Incident Support (541-330-4340) to coordinate replacement.

Background: SEI Industries manufactures Dragon Eggs for UAS aerial ignition and mixes an additive into the potassium permanganate to slow the reaction time but has confirmed that this batch did not get mixed. They shipped one pallet of 50 boxes from this date range to their US distributor in Oregon, Type One Incident Support. Each box of Dragon Egg spheres has a manufacture date stamped on the lower side (see figure 1) to easily identify the known affected spheres.

Figure 1—The Dragon Egg plastic ignition sphere box includes a date of manufacture on the lower center of the box. The date stamp in this photo is circled with a red oval.

Additional Information: These are the only known problem dates. If the manufacturer or users in the field identify additional dates, this memo will be updated.

Contact: Shawn Steber, 406-829-6785, shawn.steber@usda.gov